

### **REMARKS**

This paper is filed in response to the final official action dated April 22, 2009 (hereafter, the “official action”). This paper is timely filed as it is accompanied by a petition for extension of time and authorization to charge our credit card in the amount of the requisite fee. The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed, or which should have been filed herewith, to our Deposit Account No. 13-2855, under Order No. 29610/CDT337.

Claims 1, 2, 6, 10, and 12 remain rejected as assertedly anticipated by International (PCT) Patent Publication No. WO 2004/004421 A2 to Bechtel et al. (“Bechtel”). Claims 3, 7-9, 11, 15, and 16 remain rejected as assertedly obvious over Bechtel in view of U.S. Patent Publication No. 2003/0234609 A1 to Aziz et al (“Aziz”). Claims 4 and 5 remain rejected as assertedly obvious over Bechtel in view of U.S. Patent Publication No. 2003/0127971 A1 to Hofstra et al. (“Hofstra”). Claims 13 and 14 remain rejected as assertedly obvious over Bechtel in view of Aziz and Hofstra.

By the foregoing, claims 1 and 3 have been amended. Support for the amendment to claim 1 may be found throughout the original PCT application, for example, at pages 4-6. No new matter has been added.

The outstanding rejections are addressed below in the order presented in the official action.

### **CLAIM REJECTIONS -- 35 U.S.C. §102(b)**

Claims 1, 2, 6, 10, and 12 have been rejected as anticipated by Bechtel. The applicants respectfully traverse the rejections.

Claims 1, 2, 6, 10, and 12 are directed to an OLED comprising a substrate bearing a light emitting layer between an electrically conducting anode and an electrically conducting cathode, the cathode comprising an electron injecting layer for injecting electrons into said light emitting layer, an optical interference structure, and an electrically conducting layer, said electron injecting layer being closest to the light emitting layer and said optical interference structure being disposed between said electron injecting and electrically conducting layers, wherein said optical interference structure is configured to enhance light transmission through said cathode at said emission wavelength.

Bechtel discloses OLED-based display devices in which transparent dielectric layers 5, 6 are external to and layered upon transparent second electrode/cathode 4 (*see*, for example, Bechtel at page 4, lines 13-17 and Fig. 1). The second electrode/cathode 4 may comprise two or more conductive layers. Specifically, the cathode may comprise a first layer bordering on the EL layer composed of an alkaline earth metal (generally corresponding to an electron injecting layer, as claimed) and a second layer composed of aluminum, copper, silver, or gold (generally corresponding to an electron injecting layer, as claimed) in contact with the first layer (*see*, for example, Bechtel at page 3, lines 25-30). Bechtel then provides a number of dielectric layers 5, 6 on top of the cathode 4. Thus, Bechtel fails to disclose a cathode comprising an electron injecting layer for injecting electrons into said light emitting layer, an optical interference structure, and an electrically conducting layer, said electron injecting layer being closest to the light emitting layer and said optical interference structure being disposed between said electron injecting and electrically conducting layers, as recited in claims 1, 2, 6, 10, and 12.

Accordingly, the anticipation rejections over Bechtel should be removed.

#### **CLAIM REJECTIONS -- 35 U.S.C. §103(a)**

Claims 3-5, 7-9, 11, and 13-16 have been rejected as variously obvious over Bechtel in view of Aziz and/or Hofstra. The applicants respectfully traverse the rejections.

As discussed above, Bechtel merely teaches OLED-based display devices in which transparent dielectric layers 5, 6 are external to and layered upon a transparent cathode 4 (*see* Bechtel at Fig. 1). According to Bechtel, this configuration is advantageous because “[t]he actual manufacturing process of the electroluminescent device remains unchanged because the transparent dielectric layers are provided only at the end of the process” (*see* Bechtel at p. 2, lines 23-25).

“A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention.” *See* M.P.E.P. §2141.02 (emphasis added). In view of the above-referenced teaching in Bechtel, one of ordinary skill would not be motivated to modify the device of Bechtel to form an organic light emitting diode (OLED) or organic light emitting diode (OLED)-based display device, as claimed.

Rather, Bechtel teaches away from and fails to suggest a cathode comprising an electron injecting layer for injecting electrons into said light emitting layer, an optical

interference structure, and an electrically conducting layer, said electron injecting layer being closest to the light emitting layer and said optical interference structure being disposed between said electron injecting and electrically conducting layers, as recited in claims 3-5, 7-9, 11, 15, and 16 because, for example, incorporating such a cathode structure into the OLED would necessarily change the manufacturing process.

Similarly, with respect to claims 13 and 14, Bechtel teaches away from and fails to suggest a first electrode layer comprising a spacer layer sandwiched between a coupling layer for connecting to an OLED material and a third, substantially electrically conductive layer, wherein said spacer layer layer has a thickness of approximately an odd integral number of quarter wavelengths at said peak electroluminescence wavelength such that transmission through said first electrode layer at said peak electroluminescence wavelength is substantially maximised.

Neither Aziz nor Hofstra remedies the foregoing deficiency.

Moreover, Hofstra teaches a device which emits through the anode, and fails to teach a multi-layered anode. Thus, one of ordinary skill would hardly be motivated by the teachings of Hofstra to form a spacer layer, as recited in claims 13 and 14, into an anode.

In view of the above comments, the applicants respectfully submit that a *prima facie* case of obviousness cannot be sustained.

**CONCLUSION**

It is submitted that the application is in condition for allowance. Should the examiner wish to discuss the foregoing, or any matter of form or procedure in an effort to advance this application to allowance, she is respectfully invited to contact the undersigned attorney at the indicated telephone number.

Respectfully submitted,

MARSHALL, GERSTEIN & BORUN LLP

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Andrew M. Lawrence, Reg. No. 46,130  
Attorney for Applicants  
233 S. Wacker Drive Suite 6300  
Chicago, Illinois 60606-6357  
(312) 474-6300